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## ABSTRACT

This paper proposes "data driven educational leadership" as a key to meeting the challenges that face public education. Section I discusses the role of the educational leader, particularly the superintendent, in assessing the state of the school district, developing district goals, and fostering an instructional focus among school personnel. Section II, constituting the bulk of the paper, describes three educational improvement programs initiated by the author in his capacity as the superintendent of the Pittsburgh (Pennsylvania) Public Schools. (1) Monitoring Achievement in Pittsburgh (MAP)--intended to improve basic skills achievement--includes explicit learning objectives, frequent testing, and individual and class achievement profiles. (2) Pittsburgh's Research-based Instructional Supervisory Model (PRISM) incorporates personnel evaluation, leadership training, and a "model" secondary school used as a teacher improvement center. (3) The School Improvement Project (SIP) is intended to improve education in selected low-achieving schools and to develop a model for districtwide school improvement. Based on effective schools research, the program addresses instructional, administrative, and disciplinary problems. The booklet presents 10 considerations viewed as essential to effective leadership by the superintendent. A bibliography is appended. (MCG)

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THE SUPERINTENDENT OF EDUCATION:  
DATA BASED INSTRUCTIONAL LEADERSHIP

RICHARD C. WALLACE, JR.

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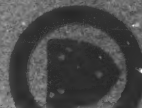
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**THE SUPERINTENDENT OF EDUCATION;  
DATA BASED INSTRUCTIONAL LEADERSHIP**

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**1985**

Foreword

Dr. Richard C. Wallace, Jr. became the Superintendent of the Pittsburgh Public Schools in the Fall of 1980. Since his first day in office, staff of the Learning Research and Development Center have had the pleasure of working closely with this very innovative superintendent. In recognition of this close tie, Dr. Wallace became an LRDC Center Associate last year. We are pleased to have this opportunity to share with others through this publication series his current thoughts on the critical role of the superintendent.

Abstract

This paper points out the critical role of educational leadership in meeting the challenges of public education. It presents a description of the role of an educational leader and provides examples of data driven educational leadership in one of the nation's major cities. Three innovative programs are discussed: Monitoring Achievement in Pittsburgh (MAP), Pittsburgh's Research-based Instructional Supervisory Model (PRISM), and the School Improvement Project (SIP).

I. Opportunity for Educational Leadership

The recent report of the National Commission on Excellence in Education has provided the stimulus for a much needed reexamination of our public educational systems. This 1983 report has helped to make education a focus of considerable discussion. Whether or not one views the report as an accurate presentation of the status quo in American schools, it does provide an opportunity to focus the attention of both the profession and the public on much needed educational reforms.

There are now more than twenty studies either in progress or recently completed which concentrate on American secondary schools. The College Board Project Equality report (1983) provides a constructive framework for superintendents and others to begin to view educational outcomes for college bound students. Boyer (1983) paints a rather dismal picture of American secondary education; however, it also provides a "blueprint" for action planning. Goodlad (1984) recites a litany of problems about public schools.

These publications can be viewed as an opportunity for superintendents to provide leadership to bring about a careful assessment of their district's status. In this way, the superintendent can focus public attention on developing and implementing plans to improve the quality of education in the schools. They must seize this opportunity to provide forceful and constructive educational leadership. Now more than ever, the nation's schools need aggressive and effective leadership.

This article represents the "reality based" experience of the author as an administrator and chief executive officer in several diverse school districts. The description of the school superintendent presented herein differs significantly from the conventional view of that role. It calls for a new focus and a significant change in how a superintendent allocates time and delegates responsibility. Given the problems currently facing American schools, perhaps the time has come to evaluate the primary function of the superintendent of schools and reexamine programs that train school administrators and superintendents.

#### The Role of the Superintendent

The current perspective of the role of superintendent is heavily oriented toward management functions. The four B's of administration -- busses, budgets, buildings and bonds -- have tended to occupy much of the attention of most superintendents of schools. Personnel administration functions including staffing and evaluation also constitute a major responsibility of the superintendent's role. Over the past ten years, many superintendents of schools have had to occupy themselves with planning for retrenchment because of the drop in the birth rate. With a focus on school closings, reductions in force and related matters, it is easy for the superintendent of schools to lose sight of the major responsibility of the position -- the education of youth.

From a research perspective, Pitner's recent study (1982) indicates superintendents currently consume most of their time in communications of one type or another. Most of that time is spent in a reactive mode: responding to requests for action, attending to logistical matters, and

participating in ceremonial activities. While Pitner finds the dominant characteristics of a superintendent's activities to be communication oriented, she did find differences among the activities of male and female superintendents. Male superintendents tend to focus their activities on maintaining or improving organizational structure, planning or overseeing the construction of new buildings, and passing tax levies. On the other hand, female superintendents tend to concern themselves more with specific educational ideas and curriculum issues. Nonetheless, in Pitner's view most of the superintendent's time is spent on noninstructional or noneducational issues.

Given the emerging focus on the need to improve the quality of education in American schools, a new opportunity presents itself for the superintendent to assert the role of educational leader. The remainder of this paper will explore the role of the superintendent as educational leader and will present examples of leadership ideas that can be applied in an urban district.

#### The Educational Leadership Role

A rich body of literature exists related to leadership effectiveness. The processes and the effects of leadership have been researched from a variety of perspectives. Those perspectives depend upon views of the role of leader, definitions of the criterion of leadership effectiveness, and tendencies of the investigator with respect to data collection and analysis. Yukl (1982) briefly describes the results of various approaches to leadership studies as follows:

The "trait approach" emphasizes the personal qualities of leaders and seeks to identify the traits and skills that contribute to leadership success. The "power-influence approach" attempts to explain leader effectiveness in terms of the source and amount of leader power and manner in which it is exercised. The "behavior approach" seeks to identify the pattern of behaviors and activities that are characteristic of effect leaders. Situational theories cut across the other three approaches and emphasize how aspects of the leadership situation determine what traits, forms of influence, or patterns of behavior are essential for leadership effectiveness.

Although a full body of literature exists relative to leadership per se, studies of the leadership impact of superintendents are almost non-existent (Pitner, 1982). Virtually no research literature exists on the impact of the role of the superintendent as educational leader.

This article focuses on the educational and instructional leadership of the superintendent, particularly as it relates to the improvement of public education in today's schools. It is the position of the author that the superintendent must exert vigorous leadership to improve instructional effectiveness and promote standards of excellence in the schools. In this regard, it is critically important that the superintendent exemplify instructional leadership in his own behavior for principals teachers and other professionals to emulate.

Throughout this article, educational leadership is defined as the process of actively influencing others to establish and use mutually agreed upon methods to achieve desired educational outcomes. The superintendent who is the instructional leader of the district is one who: (a) uses available resources to analyze needs; (b) develops, implements and evaluates plans to achieve educational goals; (c) employs a process of reciprocal leadership in which he or she influences others (and is similarly influenced) to establish effective

instructional methods to achieve the mutually desired educational improvement goals; (d) promotes a consistent framework of effective teaching and learning, and provides clear expectations for teachers and administrators; (e) fosters instructional effectiveness through observation and follow-up conferences with principals, central office administrators and teachers; (f) recognizes, encourages and supports the emergence and development of instructional leadership in staff; and (g) monitors the instructional program through observation and data analysis to insure that students learn effectively.

#### The State of the School District

The first step in providing educational or instructional leadership is to gain an understanding of the present state of the district. It is imperative that the superintendent analyze all relevant data at his/her disposal that might provide insights about the current functioning of schools in the district. These data can provide the foundation for the development of priorities for the district.

One must begin with an analysis of the strengths and weaknesses in learning achievement of students. This can be achieved by thorough analysis of standardized test results. Objective level analyses by grades and by individual schools are a good place to start. Other salient information that related to the effectiveness of teacher-pupil interaction in the district should be analyzed to gain a careful assessment as a means of developing a firm foundation for planning. This includes such indicators as failure and drop out rates, school climate and standards. An analysis of these data in relation to student attendance, teacher absenteeism and the like can be important in helping

to shape an accurate image of the state of the school district. Identification of the strengths and weaknesses of the district as well as the observation of trends in the data that describe the district's current status are important in developing the foundation for effective planning.

It is also important for the superintendent to gather data on the opinions of the general public, parents of public school students and community leaders to gain their perceptions of the needs of the school district. Involvement of these various publics is necessary to obtain the required moral and financial support for the schools. In this way, the needs of the district are assessed through surveys of various stakeholder groups as well as through analysis of more direct indicators of the state of the system.

#### District Goals

After clarifying the existing state of affairs and the desired states of performance in the school district, it is important that the superintendent work with the board of education and leadership personnel within the district and the community to identify priorities for action. It is not possible to undertake comprehensive improvement for a district all at once. No school district has the resources to accomplish all that must be done at one time. Therefore, the board, superintendent, staff and public must identify those priority areas that are to be addressed first. It is necessary to have the board formally adopt and endorse the goals as a basis for action planning by the district's personnel.

Having established the priorities, the board and the superintendent must then work together to devise specific action plans to address the priority areas. Various task forces should be established, working under the overall direction of the superintendent, to plan how the educational improvements are to be brought about. At this point, it is important that the superintendent involve leadership both at the central office and the school level. Teachers must be involved in the development of both short-term and long-range plans that address each of the priority areas. The involvement of teachers and principals is critical since they will have the responsibility to carry out the improvement strategies. Since achievement of educational goals is important for the community at large, community members must also be involved in the development of plans to address priority educational outcomes.

As the plans are being developed to address the educational priorities, an evaluation plan must also be developed to gauge the effectiveness of the improvement program. It is important that a clear notion of success criteria be established prior to the implementation of any plan. The superintendent, working with his own staff or consultants, must plan for two types of evaluation: outcome evaluation and process evaluation. Process evaluation refers to the data gathered and decision making that are required to "monitor and tailor" programs (Cooley, 1983). This is done while they are in operation so that they can be adjusted to produce the maximum results. This kind of evaluation is most important since "the best laid plans" often need to be modified in order to produce the desired results. Outcome evaluation is designed to provide data that could verify the ultimate results of the adopted changes. The increase of student academic achievement or the lowering

of the dropout rate are examples of outcome indicators. It has been the experience of the author that it typically takes three to five years to obtain meaningful results from efforts to improve the quality of schooling. Outcome data are critical in sustaining board support for an innovation.

#### Implications for Clarifying Role

Thorough educational planning provides the framework for instructional effectiveness. This in turn forms the basis of the role shift from the superintendent of schools to the superintendent of education. The superintendent of education must constantly have an instructional focus in mind and relate all other managerial aspects of the role to that instructional focus. Personnel evaluation, staffing, budget development and public relations will be conducted from the point of view of promoting the instructional effectiveness of the district. By providing an instructional focus for teachers, administrators and student, the superintendent can generate the perception that the learning of students is the most important product of the school district.

Given the nature of fiscal constraints, educational improvement will have to be achieved by "creative use" of existing staff. With some exceptions, most school districts across the country will experience enrollment decline and therefore school closings and personnel layoffs. There will be relatively little "new blood" coming into many school districts. In order to bring about a higher level of instructional effectiveness, the superintendent must focus on the development of existing staff if the goal of educational improvement is to be achieved.

One of the major problems facing superintendents will be developing an instructional focus among school principals. Most school principals (like superintendents) were not trained to be instructional leaders. Their training tends to reflect the management aspects of the role. Therefore, principals must learn to accept the new instructional leadership value and must also acquire the knowledge and skills in order to fully operationalize the role. This will not occur quickly because it requires a significant shift in values and is likely to meet considerable resistance from those administrators who have been comfortable playing the role of school manager. Therefore, the development and implementation of a long-range plan of staff development for principals is critical. It is important that principals and supervisors know how to observe teaching to identify elements of effective performance and provide feedback to teachers to enhance the effectiveness of the instructional process. Vigorous staff development programs will generally be necessary to achieve a consistency in approach among administrative staff.

Teachers will need to acquire new insights regarding effective instruction if significant progress is to be made in student achievement. Any educational improvement efforts must be perceived by them to be both manageable and effective. The best way to insure this is to involve teachers heavily in the development of those improvement plans and staff development programs. Then they will perceive them to be relevant to their needs and the needs of the district. For similar reasons principals must be involved in planning for their new role.

The superintendent must be aware of the dynamics of the educational change process and how it will affect teachers and principals in school settings. The introduction of planned changes in educational programs will produce considerable anxiety among all participants. Every person involved in the change process will undergo intense personal concerns as they encounter new programs. Such concerns produce enormous anxiety which will be manifested as resistance behavior unless they are recognized and appropriately treated.

Finally, the superintendent's role must also be characterized by an evaluation and planning focus. The superintendent must continually be alert to the data communicated regarding the effectiveness of various programmatic efforts. Effectiveness data will range from very "soft" data (teacher talk in the faculty room) to "hard" data (student achievement test scores). It is data both formal and informal, both direct and indirect. All of these evaluative data help to develop a broad picture of the effectiveness of various improvement strategies. The superintendent must use these data as well as other information to constantly refocus, refine and extend the planning and implementation effort. Planning never ends! Once plans have been developed, implemented, evaluated, and judged to be successful, it will then be time to reassess needs and develop new plans.

## II. A Superintendent of Education

This section provides an account of how the author went about the process of providing educational improvement leadership for a large urban district. Specific actions taken will be described.

### Assessing the Needs of the District

In September 1980, the author assumed the Superintendency of the Pittsburgh Public Schools. At that time, a need was perceived to focus the attention of the Board of Education on the district's most serious problems. This was judged to be important if the author was to have an opportunity to provide effective educational leadership for the district and if the Board, the staff and the general public were to develop a sense of movement toward the resolution of the district's problems.

The author initiated the design of a Needs Assessment Survey that was conducted by Dr. William Cooley and his staff at the Learning Research and Development Center, University of Pittsburgh. The survey was developed and pilot tested in October 1980; the full scale community survey was completed by the end of November. The data were analyzed in December 1980 and presented to the Pittsburgh Board of Education in January 1981. It is important to understand that the Needs Assessment Survey took two forms: (a) a survey to identify the perceptions of the improvable conditions in the district from a wide array of persons both within the broad community and within various district employee groups, and (b) an analysis of existing data that might shed additional light on problems identified through the survey.

The broad-based district and community survey, termed the "Dynamic Survey," sampled the perceptions of all levels of employees in the district, including but not limited to clerks, custodians, teachers, administrators and board members. Business and community leaders, parents of children in the public schools and private schools, as well as the public at large were also surveyed. The "Static Survey" dealt with the analysis of data available from the records of the Board of Public Education. These data included such indicators as pupil attendance records, student achievement, teacher absenteeism, and the like. The purpose of the "Static Survey" was to see what, if any, relationships existed among the data that might be useful in the Board's priority setting and the district's educational improvement planning.

#### Board Priorities

In January 1981, the Board of Education met in a day long session to review the data from both surveys. Following the data presentation, the Board deliberated and reached consensus on two major priority areas: school improvement and cost effective management. In the area of school improvement, the Board further identified six school improvement priority areas: (a) improving student achievement, (b) improving the effectiveness of personnel evaluation, (c) managing enrollment decline, (d) improving the ability of the district to attract and hold students, (e) improving the quality of school discipline, and (f) improving the performance of low achieving schools.

In February 1981, the Pittsburgh Board of Education, in its formal legislative session, voted these priorities as the primary agenda of the school district. The Board also charged the administration to develop and submit plans to address each of the areas listed in the priority statements by July 1, 1981. Those plans were delivered as requested and the Board took the summer to review them. In September 1981, the Board formally approved the district's priority plans as submitted.

Three of the major initiatives undertaken to address the Board's priorities will be presented and discussed here: (a) Monitoring Achievement in Pittsburgh (MAP), (b) Pittsburgh's Research-based Instructional Supervisory Model (PRISM), and (c) the School Improvement Project (SIP).

MAP: The Achievement Priority

The MAP program is the district's effort to improve student achievement in basic skills. MAP instructional testing programs stress focused instruction on a limited number of objectives with periodic feedback to students, teachers, parents and administrators. The system provides a class profile for teachers (analysis of errors and individual profiles for students and parents. The diagnostic class profile is used for instructional planning and the individual profile for reporting the progress of students. MAP programs are now implemented in mathematics, writing, reading, and critical thinking. MAP science is currently in pilot testing.

The development of MAP Mathematics began in November 1980. This program was initiated because the author had a sense that student achievement would be identified as the top priority of the Board. It was judged to be important to begin a project that could be readily developed and implemented and also produce an immediate success. The district needed to focus on positive learning outcomes after a decade of dealing with a difficult desegregation problem that diverted attention from educational programs. Mathematics was chosen because it is a relatively easy area to work with in achievement monitoring; it is easy to gain consensus on objectives and to develop test items. The author also had prior experience in developing such an instructional monitoring system. MAP Writing and Reading development were initiated in the summer of 1981. MAP Critical Thinking began in January 1982 with the support of a pilot test by the Board of Education; full scale development of MAP Critical Thinking began in September 1982, and this program is now in its first year of full scale implementation.

Assumptions. MAP is based on four major assumptions (Wallace, 1982): (a) classroom teachers represent an untapped resource for improvement in our schools, (b) tests of any kind must be viewed as imperfect measures of student learning, (c) teachers must focus on instruction and be encouraged and supported in that regard, and (d) the principal must be recognized as the instructional leader in the school.

The experience of the past two decades has clearly demonstrated that if we are to bring about effective change in the schools, the teachers must be involved in the development of that change process and the change program (Sarason, 1971; Goddard, 1975; Hall & Loucks, 1978). Respect for teachers is a key ingredient and the first major

assumption in the development of any school improvement initiative (Wallace & Reidy, 1978). The full and legitimate involvement of teachers is essential if we are to achieve success in modifying the schools and increasing student achievement. Further, teachers should be recognized as instructional decision makers (Shavelson, 1973; 1976). Efforts to improve their ability as instructional decision makers who promote effective student learning should be recognized as a top priority.

The second major assumption of MAP asserts that any measure of student learning is imperfect. Educators must recognize that inferences drawn from the use of multiple imperfect measures (as opposed to exclusive reliance on a single criterion) are likely to increase the validity of teacher judgments about student achievement. Further, the promotion of the teacher's role as instructional decision maker will be enhanced to the extent that they are encouraged and support in their use of multiple sources of information in making judgments about student progress. Therefore, student performance on homework and teacher-made tests, involvement in classroom discussion, as well as performance on normative achievement tests and criterion referenced tests must all be viewed as contributing to the instructional decision making process.

The third assumption relates to focused instruction. It is our belief, derived from the research on mastery learning (Bloom, 1971), that teachers must focus the attention of their students on a limited number of objectives and insure that virtually every student acquires mastery of those learning outcomes. By focusing the attention of teachers and students alike, we increase the probability of students achieving the desired outcomes.

Finally, with respect to the fourth assumption, the research on effective schools indicates that the principal is the key figure in promoting an instructional focus in the schools (Edmonds, 1979). It is our assumption that principals can make a significant difference in the effectiveness of classroom instruction and student achievement if they exert an aggressive role in leading instruction in their building (Leithwood & Montgomery, 1982).

Components. The components of MAP are: (a) an explicit statement of learning outcomes for each grade and each subject area, (b) objective referenced tests (in multiple forms) that contain one item per objective and are administered on a regular basis during the course of the school year, (c) computerized printouts of individual student's mastery and non-mastery for use by the teacher to plan instruction, (d) commercially available or teacher-made instructional materials that are keyed to and/or related to the identified objectives, and (e) specific inservice training and support to teachers and administrators to assure effective implementation of the programs.

Throughout the process of the development and pilot testing, involvement of teachers was a key element. Groups of teachers were brought together to identify the most important learning outcomes in their various subject matter areas at all grade levels. Once they achieved consensus, the outcomes were submitted to all teachers in the district for their review and commentary. Next, teachers were involved in developing items to measure the specified learning outcomes. Through a similar process, their peers passed judgment on the face validity of these items designed to assess the student mastery of the objectives. Tests were constructed to test all objectives on all occasions using one

time per objective. Next, the teachers selected and organized instructional materials to ensure that teachers teach and that students learn the objectives. Finally, the computer printouts were developed and the entire system was pilot tested to insure efficient and effective system-wide implementation.

The most effective providers of inservice training for teachers are the teachers themselves. Those teachers who were involved in the development of the program were used to train other teachers to implement it. Further, in each school building a liaison teacher was designated to serve as a building-level facilitator to help teachers with various aspects of the instructional testing system.

How MAP works. At the beginning of the school year, parents and pupils are provided with a statement of the expected learning outcomes of MAP along with sample test items so that they know what is expected of pupils. Tests are administered every six weeks in mathematics, five times per year in grammar and reading, and four times per year in writing (analysis of a writing sample). The tests are scored in the central office; within five days of each test administration individual pupil profiles and class profiles are returned to teachers. The individual profiles provide data to students and parents describing how well the student is doing with respect to the expected outcomes. Parents receive copies of their child's profile so that they are also informed regarding progress. The class profile provides the teacher with an analysis of errors. Teachers use these data to group pupils for instruction and to develop plans for instruction during the interval between testings. Monitoring of the progress of the students in

attaining the learning outcomes is done by both the principal at the building level and by central office personnel in order to insure that student learning is progressing as planned.

Results to Date. The results to date have been very encouraging. For the first time in the 15 years that the Board of Education has been publishing achievement scores by schools, the students at all grade levels (e.g., 1-8) scored at or above national norms in the California Achievement Test in the areas of mathematics, language arts, and reading. As of June 1984, 74% of the students scored at or above grade level in mathematics, 71% in language arts, and 60% in reading (Pittsburgh Public Schools, Office of Testing and Evaluation, 1983). Our goal in math is to have 75% of the students scoring at or above grade level by 1985. Similar goals have been established in language arts and in reading.

The evidence gathered from a variety of studies of implementation effects present a generally positive consensus about the effects of MAP (Sproull & Hofmeister, 1983; Salmon-Cox, 1983b, 1983c, 1983d; LeMahieu, 1983a, 1984). Studies carried out in the district link the MAP Mathematics program to observed increases in the mathematics performance of students (Salmon-Cox, 1983c; LeMahieu, 1983b). From multiple perspectives, it appears that the attention of parents, the public, teachers, administrators, and most importantly, the students themselves has been captured. In doing so, a positive instructional thrust for the district has been generated. However, the serious academic deficiencies of urban youth have only begun to be addressed.

PRISM I: The Evaluation Priority

Personnel evaluation was established as the district's second highest educational priority. In doing so, the Board of Education reflected its own views as well as those of community members and school district employees. Essentially, the survey data revealed that respondents believed that too many teachers and administrators were performing their duties effectively, a condition which needed to be corrected.

The superintendent perceived that two alternatives were available to respond to this priority. The first alternative would have been to use the existing evaluation systems and embark on a "witch hunt" to identify ineffective personnel and then seek to demote or discharge them. The second alternative would be to seek to increase the quality of supervision and evaluation and set out to improve the performance of all personnel in the district. This approach would require that the performance expectations for all personnel be carefully detailed and that persons be observed and provided with structured feedback to improve performance. The first alternative is clearly punitive in nature and was likely to produce a negative response among teachers and administrators. It would probably have created an atmosphere of negativism that would have proved detrimental to the more positive improvement thrust of the Board. The second alternative is improvement-oriented and is designed to make good teachers and administrators better, while at the same time identifying those who need significant improvement. While the latter approach would still induce some anxiety among teachers and administrators, it could be approached with a constructive spirit and provide an opportunity to improve

performance. The latter approach places professionals in a helping relationship with respect to each other to bring about a positive improvement in the state of educational affairs.

This more constructive approach was selected to improve personnel evaluation procedures and the general level of professional performance in the district. The plan became known as PRISM (Pittsburgh Research-based Instructional Supervisory Model). At present, there are three variants of PRISM in operation and a fourth in the planning stage. PRISM I is concerned with providing a consistent framework for the description, observation, improvement and evaluation of instruction at all levels in the district. PRISM II is directed toward improving the instructional leadership behavior of principals, supervisors and central office administrators. PRISM III is the district's effort to improve the quality of secondary education, while PRISM IV is designed to improve the effectiveness of instruction, supervisory leadership and personnel evaluation and thus lead to a higher quality of student learning in the district.

Assumptions. PRISM I is based on the following assumptions: (a) personnel evaluation will be enhanced when teachers, administrators and their evaluators are engaged in a dialogue that focuses on clear communication of expectations of job performance in that role; (b) a consistent framework of effective teaching based on research findings exists and can be taught, learned and applied; (c) teachers, administrators, and supervisors can be trained to observe performance, gather evidence with respect to that performance and provide structured feedback that will cause that performance to be improved; and (d) if teachers and administrators are unable to improve their performance

after careful role clarification, reasonable observation and feedback, and specific training, then action must be taken to terminate their employment.

Components. There are four essential components of PRISM I: (a) knowledge training, (b) skill development, (c) follow-up coaching, and (d) peer networks. The knowledge base of the model is derived primarily from the work of Madeline Hunter. Where appropriate, other research findings have been introduced to augment the model. Skill training focuses on the development of the ability to take anecdotal records of observations, these records are as close to verbatim records as possible. They are used in planning and carrying out the conference with the teacher. This aspect of the model is a variant of the Clinical Supervision model developed by Cogan (1973) and Goldhammer (1969).

As components of the model of effective teaching are presented, principals are provided with the opportunity to put that knowledge to use in planning and conducting a lesson for their peers. They are observed and provided with structured feedback from their peers as a means of furthering the skill development of note taking, conference planning and conferring. Principals are then asked to plan and teach lessons on PRISM to their faculty.

Follow-up coaching is probably the most critical component of the model. At least once every four to six weeks, each principal is visited by a "coach." The visit is designed to provide opportunity to jointly carry out an observation and conference, review aspects of the model that need clarification, analyze the monthly log of the principal and plan for future developments related to an individual principal's needs.

Establishing networks of peers was one of the major development efforts for PRISM I during the 1983-84 school year. The ongoing acquisition of the knowledge and skills required for effective leadership in the schools requires that principals meet periodically in support groups. The support groups have been designed to allow for peer interaction. It is assumed that each principal has some knowledge or skills that can be shared with others and thereby contribute to the common good.

Development. The superintendent convened a task force of teachers, administrators and central office personnel in March 1981. That task force was charged to develop a plan which would address the Board's priority of personnel evaluation. The task force spent four months reviewing a variety of approaches to personnel development and evaluation. It recommended that the district adopt and implement a modified version of an instructional model developed by Madeline Hunter (1978). It recommended that a clinical supervision process be the vehicle to address effective performance by teachers.

the model was adopted from a similar program developed for the Norfolk, Virginia Public Schools by Dr. Theodore Forte. Forte had modified the Hunter materials to meet the needs of his district. He was retained as a consultant by the Pittsburgh School District to train a team of four staff development associates appointed by the Board to address this priority area. The four staff development associates were selected from the ranks of the district's principals and central office personnel. the staff development team was trained initially by Forte and subsequently by other educators well experienced with the Hunter model; they were assigned to train all administrators and teachers in

the district in the PRISM model.

How it works. Beginning in September 1981, all administrators in the district were required to attend 30 hours of training on the PRISM model. All central office administrators, including the Superintendent and Assist Superintendent, were trained. By the end of the 1981-82 school year, all principals and supervisors had received initial training and were using PRISM with selected staff to become more skillful in using the model. In the summer of 1982, the principals taught a special two-week summer session for students. This summer school provided them with an opportunity to teach students themselves while using the instructional model. As they taught, they were observed by their peers and received feedback from them regarding the effectiveness of instruction. This provided a mechanism through which both instructional and supervisory skills could be refined simultaneously.

During the 1982-83 school year, all principals were expected to conduct a minimum of three observations along with follow-up conferences each week. They are required to keep records of the observations. These included the subject and grade level observed, the focus and the style of the conference (in terms of the specific improvement strategy). The data describing these observations were carefully monitored by the staff development team. Additionally, each of the staff development team members were assigned a specific number of principals for whom he or she was responsible. These staff development associates functioned as coach for the principals, and were required to co-observe and co-conference with them to insure that the principals had assimilated and operationalized the instructional model effectively. This same

process is being used in the 1984-85 school year.

PRISM reflects the first segment of the responses to the Board's priority regarding effective personnel evaluation. It has established the criteria for effective instruction. PRISM I has provided principals with specific classroom observational skills including anecdotal note taking, analysis of notes to obtain specific data for the teacher conference, conference planning and conducting conferences to promote instructional improvement. All of this was done with a method whereby each administrator was required to go through a plan/teach/observe/confer cycle at each stage of training in order that he/she would internalize the model through actual practice. The program was focused on improving performance in instructional observation and conferencing skills as well as increasing knowledge.

Results to date. In the 1984-85, PRISM I is in its third full year of operation. During the first year, principals and supervisors were trained in the fundamental of the PRISM model and given guided practice in its application. During the first year, emphasis was placed on developing the knowledge of effective instructional skills as well as improving instructional observation analysis and conferring skills. Principals were asked to work with a few selected teachers and to concentrate on observation and conferencing directed toward the reinforcement of effective teaching techniques. This was done in order to provide a positive experience for both teachers and principals. Over time, principals were provided further knowledge training and extended their skills to all types of conferences with teachers.

A survey conducted by Salmon-Cox (1983a) provided formative evaluation data to the Staff Development Team. The results indicated an unanticipated high level of enthusiasm for the program. The data indicated that the principals are taking the program seriously. Many constructive suggestions were offered by the principals to improve the efficiency of the program. The data indicate that the principals are taking the program seriously. Many constructive suggestions were offered by the principals to improve the efficiency of the program. One of the most salient findings of the survey compared responses of principals in 1980 and 1983 with respect to criteria for teacher evaluation. As part of the needs assessment survey, the principals responded to the following question: "A serious problem I face is a lack of good criteria by which to evaluate teacher instructional effectiveness." In 1980, 87.5% of the elementary principals, 50% of the middle school principals, and 71.4% of secondary principals agreed that this was a problem. In 1983, only 13.3% of the elementary principals, 6.7% of the middle school principals, and 25% of the secondary principals responded that this was a problem.

#### PRISM II: Leadership Training

PRISM II is the District's Program to improve the instructional leadership skills of principals, supervisors and central office personnel. PRISM II has been developed because most principals have not been trained as instructional leaders. Degree and certificate programs for administrators have tended to focus primarily on the managerial aspects of schooling. As a result, many administrators are not prepared to cope with the current emphasis on instructional leadership. Not only has their training failed to prepare them to assume this role, most

school boards and school districts have not expected principals to be instructional leaders. Principals often were selected for their positions because they are good at public relations or good at discipline. More often than not, supervisors of instruction at the elementary, middle and secondary level are somewhat better prepared to offer "content centered" instructional leadership. However, they often lack the status and the power to exercise potent leadership. Thus, with the new emphasis on educational improvement the nation finds its schools under the direction of principals who are not well prepared to assume this new instructional leadership role.

Assumptions. PRISM II is based on the following assumptions: (a) instructional leadership can be defined, implemented and evaluated; (b) all principals can become instructional leaders; (c) most principals will need substantial training order to develop the knowledge-base and the skills to provide instructional leadership; and (d) the process of developing instructional leadership can be facilitated by establishing peer networks of administrators.

Components. PRISM II overlaps significantly with PRISM I. At this time, the District is still working to define the concept of instructional leadership and develop a framework of the knowledge and skill components necessary to develop a long-range plan. The training workshops and the coaching of PRISM I serve as the foundation for PRISM II. The knowledge of the components of effective instruction and skill in observing and improving instruction are cornerstones for instructional leadership. Beyond PRISM I, however, principals and other administrators must have a knowledge base with regard to curricular models and instructional techniques. Principals need to know enough

about organizational development and the educational change process in order to furnish an environment for teachers that is likely to produce a focus on instruction.

The Pittsburgh School District has provided summer workshops for principals covering such topics as the role of questioning techniques in improving instruction. Workshop time has been devoted also to the development of school-based plans for the instruction of faculty members in the components of PRISM I.

Currently, a committee of principals, supervisors and central staff is working with the staff development team to: (a) implement a curriculum and communication component of instructional leadership, (b) create a system of networks to provide support for principals, and (c) establish a resource bank of professionals who can assist in the leadership training process.

Plans are now being developed in collaboration with school administrators in Allegheny County (in Southwestern Pennsylvania) to implement a Principals' Academy that will serve the entire region. The academy will serve some of the instructional leadership needs of Pittsburgh city administrators.

Unfortunately, instructional leadership remains a somewhat elusive concept. It is relatively easy to sense instructional leadership when one sees it; one also knows when it is not present in a school. While there is a considerable body of literature with respect to leadership per se and a vast body of literature with respect to curriculum and instruction, the roles of principal and superintendent as instructional leaders remain basically unresearched and in need of more complete

definition, development and documentation.

Results to date. The data gathered with respect to the implementation of PRISM II indicate that about one third of the principals in the district have embraced and implemented the concepts implicit in the model. Approximately another third of the principals are still struggling to implement many aspects of the model. The final third of the administrators are trying very hard to avoid the concept, hoping that the expectations will somehow "go away." Administrators have been evaluated over the past three years on the extent to which they have cooperated with the staff responsible for the PRISM I and the MAP programs. Evaluation items have been developed to rate principals on the effective implementation of MAP and PRISM programs in their schools, especially as they related to student achievement. The results indicate that we need to provide more effective ways for principals to process and use information that informs him/her of what is going on in the school instructionally. This may require different formats for presenting information and additional training in use of data. Dr. William Cooley of the Learning Research and Development Center, University of Pittsburgh is currently working with district staff to develop and implement a prototype model that will help the principal process the MAP data at the building level. It is hoped that analysis of these data can become the basis for promoting and enhancing instructional leadership in principals.

PRISM III: Teacher Center

The Schenley High School Teacher Center is the Pittsburgh School District's response to the Board of Education's priority to increase the effectiveness of instruction at the secondary level. It also addresses the district's need to reduce the high school dropout rate. In 1980, 35% of the students who entered grade 9 in 1976 failed to graduate from grade 12. Even more startling is the fact that 28% of the ninth graders failed to achieve sufficient credits to become bona fide tenth graders. These significant problems demanded attention.

Plans to improve the effectiveness of instruction at the secondary level and to improve our ability to keep students in school resulted in the development of a proposal to the Board of Education that one of our secondary schools become a teacher center. The plan was to create a "model" secondary school for teaching and learning for the district (Wallace, Young, Johnston, Bickel, & LeMahieu, 1983). This model school would be designed for secondary teachers to improve their teaching skills and update their knowledge of their academic field. Further, it was proposed to the Board that all secondary teachers in the district be provided with a "mini-sabbatical" at this model school. The plan called for the Board to restaff this school with the most able teachers in the district. The plan was approved by the Board and the Schenley High School Teacher Center was initiated in 1982. Intensive and detailed planning over the next year paved the way for the Center's opening in August, 1983.

Teacher Center goal. The primary purpose of the Schenley High School Teacher Center is to provide a teaching and learning experience for each secondary teacher in the Pittsburgh Public Schools. Teachers have an opportunity to: (a) observe exemplary instructional activities in a real setting, (b) sharpen their current instructional skills by practicing new instructional techniques, (c) receive clinical feedback on that practice, (d) translate theory into practice, (e) receive an update in their specific subject matter areas, (f) review the latest research findings in effective teaching, and (g) obtain a broad perspective of modern youth culture and its implication for effective teaching.

The Schenley High School Teacher Center provides a realistic site for teachers to teach and learn. The school has programs that are generally replicable at any other high school in the Pittsburgh Public Schools. The current program offerings, both regular and magnet, have been maintained and expanded in terms of the quality and variety of instructional techniques. New magnet programs have been designed in high technology, classical studies and international studies to provide exceptional educational opportunities to students through the city, and to promote the voluntary desegregation of that school.

A second purpose of the Teacher Center is to provide an opportunity for teachers to engage in independent research activities with a goal to create something that will be useful to them in their home school. Opportunities are provided to engage in externships with business, industry or higher education. This enhances the participants with an enriched background for teaching.

Assumptions. The Teacher Center program is based on the following assumptions: (a) secondary teachers can be engaged productively in a "clinical experience" that will cause them to reflect upon and improve their teaching techniques as they observe other teachers, analyze instruction, teach and receive feedback on their own instruction techniques; (b) a professional dialogue can be developed that will break down the isolation experienced by most secondary teachers; (c) opportunities can be provided for teachers to participate in lectures and seminar that will upgrade their skills and knowledge in their content area; (d) participation in seminars on adolescent development and related topics will cause teachers to gain greater understanding of and increased skill in dealing with today's urban youth.

Components. The general structure of the teacher's experience includes three phases: (a) orientation, (b) direct involvement, and (c) reinforcement and support.

The first phase (orientation) is conducted by members of the Schenley High School Teacher Center staff in conjunction with individual teachers, building principals and supervisors in the sending school. This phase involves the identification of each individual teacher's needs and the generation of an individualized study plan for each teacher. It is intended that these plans will reflect both the individual teacher's and home school's needs.

The second phase (direct involvement) takes place at Schenley High School. It has been based on an extensive needs assessment of our secondary teachers. It includes but is not limited to the following:

1. Participation in seminars with peers and center staff, as well as university, business and industrial personnel;
2. Involvement with a clinical experience, including observation of effective teaching, planning, actual teaching and conferences;
3. Fulfillment of individual student plan requires which may include working with university, community and/or business resources;
4. Training in appropriate new technologies, including use of instructional media and computers.

This phase occurs over eight week periods aligned with one of the four quarters of the school year. Specially trained replacement teachers teach the classes for the visiting teacher while he or she is at the Center.

The third phase (reinforcement and support) occurs at the home school. The purpose of this phase of the program is to ensure retention and to support the teachers in the use of the skills and knowledge acquired at the Center. This assistance will be a responsibility shared by the Center staff, the home school and other staff, all of whom will have been appropriately trained.

Staff. The staff of the Schenley High School Teacher Center is among the best in the school district. All are fully-certified secondary teachers who either applied or were recruited for the position. A prerequisite for appointment was a willingness to make the

commitment to the overall objectives of the Teacher Center. The full cooperation of the Pittsburgh Federation of Teachers was important in bringing about a successful opening.

The entire staff received intensive training and practice in the principles of effective instruction. Some resident teachers teach a reduced load of four classes and, in the remaining time, teach a series of seminars on adolescent development, orient teachers coming to the Center, monitor research activities of peers, serve as a model of exemplary teaching, and supervise the clinical component of the Teacher Center as well as perform conventional faculty duties.

One third of the resident staff serve as Clinical Resident Teachers. Each clinical resident teacher works with two visiting teachers in the "teaching clinic," which is based on the district's model of effective instruction (PRISM). In this phase of the training, the visiting teachers assist in developing lesson plans, observe effective teaching, and have an opportunity to practice the model. The clinical teacher then provides them with structured feedback.

The one-site Center staff is assisted by a cadre of 48 replacement teachers; these teachers are fully certified professionals whose teaching specialties represent the subjects offered at the secondary level. In the home schools they replace those teachers who, for the period of eight weeks, are taking part in the Teacher Center program as visiting teachers.

The administration of the Schenley High School Teacher Center is a shared responsibility. The principal is responsible for all programs affecting the students and staff within the framework of the high school. The Teacher Center Director is responsible for designing and implementing the program for visiting teachers.

Context. The Schenley High School Teacher Center is one of the major efforts in staff development of the Pittsburgh school district. It is an outgrowth of the Board of Education's priority for school improvement. The structure of the program is consistent with the PRISM I and II programs designed to promote instructional effectiveness in teachers and instructional leadership skills in administrators. A specific program of school improvement in seven Pittsburgh elementary schools is also consistent with the general goals of Schenley High School Teacher Center and other related programs, the Pittsburgh schools provide a coordinated intervention strategy designed to promote more effective teaching and learning in the city schools.

Results to date. At this writing, the Teacher Center is in its second year of operation. The Center is the objective of study from several perspectives. With funding from the Ford Foundation, evaluation of the Center's program has three main foci. First is the documentation of the implementation of the Center program. In addition to providing a generalized description of program implementation, documentation focuses on the continuing planning for improvement of the program, analysis of the visiting teacher interaction with the clinical resident teachers and the changing role of the department chairpersons. The second evaluative focus provides feedback for the improvement of the program while it is in operation; the data gathered for these purposes are used to improve

the quality of program components such as the seminars. The third evaluative focus is the conduct of short-term and long-range impact studies to assess the effects of the program on the secondary schools in the city.

As a result of evaluative feedback and documentation, the second year of the program is different in some respects from the first year. For example, several operations were used during the first year, based on feedback, with regard to the scheduling of the PRISM theory training and the teaching clinics. The current scheduling of PRISM theory at the beginning of each cycle and the scheduling of teaching and non-teaching weeks for visiting teachers has promoted better use of clinics; the changed schedule also provided for more time for individualized studies for teachers.

Data gathered from a survey indicate that students perceive both a higher degree of expectation for their learning and increased homework demands. The students express positive reactions to the "new" school environment and the climate in the school. The student survey repeated at the end of the 1983-84 school year corroborated the earlier findings. Students reported higher expectations than in the past, greater concern for their learning on the part of the new teachers and a greater emphasis on attendance at and participation in school and classes. This new climate manifested itself in a considerable increase in student achievement in the school. In 1983, only 28% of the students in the school were scoring at or above grade level in reading and 27% in language arts. Following the first year of operation of the Schenley High School Teacher Center, those proportions had increased to 37% and 38% respectively.

SIP: The Performance Priority

The School Improvement Program is the District's effort to improve the quality of education in selected elementary schools. This priority was established as one of the six important educational priorities of the district. The board, in approving this priority, expressed its concern that certain schools in the district, predominately low achieving and predominantly black, had been neglected. In the summer of 1981, a principal who had a twelve-year record of significant achievement in a black segregated school was selected as Director of the School Improvement Program. Additionally, three of the most outstanding supervisors in the district were assigned to work with this director. Later, a teacher on special assignment with expertise in reading was added to the team. The group was assigned to implement change in seven elementary schools. The schools chosen were geographically distributed throughout the city and represented predominately black segregated and integrated schools; all, however, had a longstanding record of low achievement or under achievement.

The School Improvement Team was given three charges: (a) to assist the selected schools to become effective, high achieving schools; (b) to develop a model for school improvement that could be used with other schools in the district; and (c) to achieve these goals within a three year period.

Assumptions. The School Improvement Program is based on the following assumptions: (a) the effective schools research findings can be used to formulate intervention strategies to bring about significant change in elementary schools; (b) data driven instructional planning, along with achievement monitoring, is a critical ingredient of an

effective urban school, (c) monitoring system that identify specific achievement goals, pacing of instruction, time of task and minimum standards of mastery are prerequisites for success in these schools; (d) parental involvement is critical to produce a significant positive change in student achievement; and (e) principals of these schools can become effective instructional leaders.

Components. The School Improvement Team began working with assigned principals and school faculties of the seven schools in the summer of 1981. As the program evolved during the first year, the following components emerged as critical to the success, or the potential success of the program.

First, a data bank was established for each school. This data bank was comprised of all records of student achievement that were available in the schools. Important among these data sources were the student achievement records from the existing reading system, including end of unit tests. Standardized achievement test data and other information relating to the academic progress of students formed important elements of the bank. The main purpose of the data bank was to insure that an effective monitoring system could be developed that would involve adequate pacing of students, and reteaching of skills not mastered in particular units of instruction in basic skills. The most critical variable for school improvement is knowing where the students in that school are placed along the continuum of achievement at any point in time; it is imperative that teachers and principals use these data to guide instructional planning and mastery learning. The second component, closely related to the data bank, is the development of a monitoring system that went beyond the MAP system described earlier.

The monitoring system establishes monthly or weekly expectations for each child in each classroom of the school. Given specific pacing goals, instructional expectations and mastery criteria, the principals and teachers have a system that can be used to monitor carefully the academic growth for each individual student.

Secondly, a discipline model was established for each of the schools. Data gathered from the Needs Assessment Survey in each of the school identified discipline as the teachers' greatest concern. The research on effective schools clearly indicates that there must be an orderly environment if the schools are to become effective. Therefore, a unified model for discipline was established for each of the school improvement schools.

One very interesting aspect of the early SIP needs assessment completed by teachers was the low number of respondents identifying problems directly related to the quality of instruction in the schools. Overwhelmingly, teachers identified problems related to student discipline, lack of parent involvement and inconsistent administrative support as the critical areas in need of change. This was despite the fact that these schools were well below national norms in achievement. These assessment data underscore the importance of incorporating an external support system into a school improvement effort. Schools in need may not be able, on their own, to identify and work energetically for all of the changes that are necessary to create an effective instruction climate.

A fourth component is a steering committee that was established in each of the schools. The steering committee served as the clearing house for school based decision making with regarding to the implementation of the improvement project. The steering committee was used to give the teachers personal involvement in the development of the improvement program in the schools.

One of the most important components of the program was the development of a focused supervision process. The standard operating procedure for supervisions in the city's schools prior to this project followed what might be termed a demographic model. On each occasion when the supervisor visited the school, every teacher in the school was visited for a few minutes; the supervisors felt guilty if they did not meet and talk with each teacher. However, the School Improvement Project found this kind of supervision to be ineffective when trying to bring about specific changes in teachers' instructional behavior. During the first year of the project, the supervisors found that they had to organize and deliver services very differently. They began to focus on a limited number of teachers where instructional weaknesses were apparent. After careful review of the data bank, it became clear which teachers were failing to achieve mastery of student learning. Those teachers who failed to move students along at a reasonable learning pace received extraordinary assistance through the focused supervision model. The members of the team then used the PRISM and clinics' supervisory models to provide these teachers with intensive observation and feedback to improve their instructional performance. This was a radical departure from the prior norm that minimal supervisory service be provided to all teachers.

Team staffing became another important component of the program. This process involved members of the School Improvement Team, along with counselors, psychologists, principals and key persons within each building in discussions about individual pupils in the building. Staff conferences, a critical part of the special education program in the district, assumed an expanded role with respect to the number of professionals that were engaged in the process and the number of pupils reviewed. The goal of the team staffing was to insure that the school was allocating its professional resources effectively in order to bring about a significant improvement in student learning. The major purpose was to provide early screening for children who were having learning problems. The process could result in a prescription for the child or a program modification to promote effective learning.

The parental component of the program is very important. Very often, parents who might be considered economically or culturally disadvantaged do not have the same ability to intervene constructively in their children's education as do upper middle class parents. Typically, low income parents do not understand how the school system works and just as often they do not know how to help their children effectively at home. Therefore, an important part of the School Improvement Program has been to give parents an understanding of how they can make the school system work for and with them. More importantly, the kinds of parenting skills that are likely to bring order and an academic environment into the home are also important parts of the parent training program.

The effective schools research identifies strong instructional leadership on the part of the building principal as a most potent variable in school improvement. Perhaps this is the most important component of the program. Our School Improvement Program is based on the assumption that the use of data provides a framework from which sound instructional leadership can emerge. Principals, as well as teachers, are trained in the use of the data bank. It is expected that the principals will use the data bank in working with teachers to bring about effective instructional planning for each student. Additionally, principals are expected to use faculty meetings and similar teacher gatherings to constantly promote "data driven instructional planning." The program has trained principals to work with teachers to set expectations with regard to achievement and pacing. In addition, the principals have been trained how to use periodic achievement data on students to monitor the growth of each student in the school. The principals are encouraged to intervene when the data suggests that instructional planning needs to be modified. They also exercise instructional leadership in working with the focused supervision part of the School Improvement Team to improve the instructional repertoire of specific teachers.

Another important component of the School Improvement Program is documentation and evaluation. The district has worked closely with the Learning Research and Development Center of the University of Pittsburgh to document carefully all major proceedings of the project in all project schools. The purpose of the documentation is to provide a record of actions taken, problems encountered and successes achieved by the project to further the development of a model that can be used in other schools. An important part of documentation is to provide

corrective feedback to project staff as they monitor and evaluate the progress of school improvement. Since there is very little literature on how to bring about effective schools, the documentation of this project should serve as an important contribution to the nation's school improvement efforts (Bickel, 1984).

Results to date. The results to date in terms of student achievement have been very encouraging. In 1981, the year prior to the implementation of SIP, the seven schools generally had more than half of their students scoring below the national norm on California Achievement Tests for reading, math and language. Out of 21 possible occasions (seven schools times three subject areas), there were only two instances where more than half the students scored above the national norm. In 1984, more than half of the students were above grade level in each school and every instance. These data provide some evidence that the improvement made by SIP schools since 1981 are likely to be maintained.

Another way of looking at the achievement progress being made in these SIP schools involves comparing them to other schools in the system. Using California Achievement Test scores in reading and math, not one of the seven SIP schools was ranked in the top half of the system in 1981. Now, two of the seven schools are in the top half in reading and two are in the top half in math.

The School Improvement Team members believe that they have learned enough over the past two years to develop an effective model for school improvement. Five additional schools were added to the School Improvement Program in the fall of 1984. Two of the schools from the first cycle will be continued in the program in order to ensure that the progress will be maintained. Also, it will be important to monitor the

continued development of the schools that have been in the program to make sure that they maintain the gains that have been achieved. All in all, this program has some remarkable successes to show for three years of intensive effort.

### III. Conclusion

In this article, the author has attempted to describe the role of the superintendent of education. Part I of the article dealt with some of the general conditions that call for an intensified educational leadership role on the part of today's superintendent of schools. Part II dealt with specific initiatives designed to improve the quality of schooling in an urban school district; MAP, PRISM and the School Improvement Program have been discussed.

The results of these initiatives to improve schooling in Pittsburgh have been encouraging. While it is still too early to make final judgments about the impact of the educational improvement initiatives, some observations are in order. It is encouraging that district-wide indicators have turned around. Achievement is up, absenteeism is down, suspensions are less frequent, students are staying in high school and so forth. These and other indicators will be monitored carefully in ensuing years.

At this point, a brief review of some of the author's beliefs about educational leadership may be helpful in summarizing the role of the superintendent of education as presented in this article.

Leadership can be defined in many ways. Expressed very simply, it can be described as a process of working with and through other people to get a job done. Educational leadership, at the level of the superintendent, requires extensive goal setting, planning, implementation and evaluation relevant to instruction.

The author views the following as some of the key components of effective educational leadership by the superintendent of education:

1. Educational leadership must be data driven. The superintendent of education must constantly seek and process data and inquire as to its meaning. Planning must be data based; it must constantly take stock of the status quo. Educational planning must be shaped, in part, by the latest research findings relevant to the particular problem. The implementation of programs, too, must be data based. The superintendent must constantly monitor program improvement efforts and gather data from teachers, administrators, students and parents in order to assess the quality of the implementation and to make appropriate modifications to insure success. Finally, evaluation to determine the overall effectiveness of plans that have been implemented is critical. These data once again feed into the goal setting, planning and implementation process that are cyclical and continuous.
2. Participative planning is critical. Those persons who are to be most affected by any new program initiative must be involved in its planning. This is particularly true when an active teachers' association or union exists in the district. Teachers, administrators and perhaps parents should be involved

in analyzing the data and generating plans to address specific areas where improvement is needed. Throughout the planning process, all faculty should be involved, at least through feedback process. It is imperative that those who are to use an innovation or a new program alternative must acquire some sense of ownership.

3. Respect must be communicated to the teachers and principals who develop programs. More often than not, teachers and administrators have much more talent to generate solutions to problems than they recognize. Giving them opportunities to become involved in the planning and development process, providing positive feedback and giving them opportunities to experience the sense of gratification is important in moving the process forward.
4. Risk taking is essential if progress is to be made. No significant changes will come about from an attempt to provide educational leadership without risks being taken. To provide effective leadership, one must be bold enough to attempt the impossible. To take challenges which cause everyone to reach beyond their immediate performance level is necessary if progress is to be made in bringing about results.
5. Knowledge of the change process is important. There are many change models that are available to educators now. It is not necessarily important that one embrace a particular model over another. What is important is that the superintendent understands the dimensions of the change process and attends to them during program implementation. This author embraces the

Concerns-Based Adoption Model (Hall, Wallace, & Dossett, 1973) as a constructive approach to educational change. The model acknowledges that teachers involved in implementing a new program must go through a resolution of their own concerns and must learn to use an innovation in successive stages of development.

6. One must have a vision of good education. One cannot lead without knowing where one wants to go. It is important that good pedagogical practices at the elementary, middle and secondary school level be clearly understood by the superintendent. He or she must know exactly what it is that is expected in terms of teacher behavior, pupil behaviors, uses of instructional materials and the like. Without vision, educational leadership efforts will fail.
7. Follow through is essential. Many veteran teachers say, "I've seen them come and I've seen them go and I'm still here." This comment reflects the fact that failure to follow through and evaluate new program initiatives tends to guarantee failure. Follow through is really a function of comprehensive planning, careful implementation and thorough evaluation. If a program is begun, it is important to pay attention to that initiative, to modify it and see it through its cycle of completion.
8. Recognition of the key role of principals in school improvement is vital. The old adage that good principals make good schools is quite correct. However, being a good principal, from the author's perspective, requires that one be a strong instructional leader. Therefore, the superintendent as

educational leader must take seriously the responsibility to develop that educational or instructional leadership capability in the principals. This need must be approached as an educational innovation. Specific goals must be set, thorough planning and careful phasing of the implementation is essential and evaluation is critical. This probably will be the most difficult of all of requisites to bring about effective schools. While educational leadership itself may be somewhat of an intangible variable, the knowledge-base with respect to instructional leadership is not. The knowledge of curriculum, models of instruction and instructional evaluation can be taught, learned and operationalized. It is unfortunate that administrative training programs for superintendents and principals have largely ignored these important areas.

9. Routine administrative matters must be delegated. Responsible administrators must free the superintendent to provide educational leadership. The superintendent must protect the daily calendar to insure that necessary time is available to visit schools. Time must be allocated for the superintendent to meet with groups that are planning, developing, implementing and evaluating instructional initiatives. By demonstrating and communicating interest in instructional effectiveness, the superintendent will increase the likelihood that educational priorities will be achieved.

10. The superintendent must model the instructional leadership behavior that will be expected of principals and other administrators. If the principals observe the superintendent engaged in data analysis, planning, developing, implementing and evaluating instructional initiatives, they can adapt those behaviors to their own responsibility. If the superintendent models the behaviors listed in 1-9 above, the stage is set for other administrators to play a similar role.

It is hoped that this presentation of the role of superintendent as an educational leader will provide a stimulus for discussion among school administrators and those who have responsibility for training of administrators. The times are such that a significant opportunity exists to provide effective educational leadership to all levels of schooling. We must not fail to take advantage of the opportunity to reexamine and perhaps rethink all aspects of training for educational leadership.

References

- Academic preparation for college. New York: The College Board, 1983.
- Bickel, W. E. (1984). Evaluator in residence: New prospects for school district evaluation research. Educational Evaluation and Policy Analysis, 6, 297-306.
- Bloom, B. (1971). Mastery learning. In J. Block (Ed.), Mastery learning: Theory and practice. New York: Holt, Rinehart and Winston.
- Boyer, E. L. (1983). High school. New York: Harper Row.
- Cogan, M. L. (1973). Clinical supervision. Boston, MA: Houghton Mifflin.
- Cooley, W. W. (1983). Improving the performance of an educational system. Educational Researcher, 12, 4-12.
- Edmonds, R. (1979). Some schools work and more can. Social Policy, 9, 28-32.
- Evaluation Unit. (1981). A needs assessment of the Pittsburgh Public Schools. Unpublished manuscript, University of Pittsburgh, Learning Research and Development Center.
- Gardner, D. P. (1983). A nation at risk: The imperative for educational reform. Washington, D.C.: U.S. Government Printing Office.

Goldhammer, R. (1969). Clinical supervision. New York: Holt, Rinehart and Winston.

Goodlad, J. I. (1975). The dynamics of education change. New York: McGraw-Hill.

Goodlad, J. I. (1984). A place called school. New York: McGraw Hill.

Hall, G. E., & Loucks, S. P. (1978). Teacher concerns as a basis for facilitating and personalizing staff development. Teachers College Record, 80, 36-53.

Hall, G. E., Wallace, R. C., Jr., & Dossett, W. A. (1973). A development conceptualization of the adoption process within educational institutions. Unpublished manuscript, University of Texas, Research and Development Center for Teacher Education, Austin. .

Hunter, M. L. (1978). A clinical theory of instruction. Segundo, CA: Tip.

Leithwood, K. A., & Montgomery, D. J. (1982). The role of the elementary school principal in program improvement. Review of Educational Research, 52, 309-339.

LeMahieu, P. (1983a). The effects of a program of student achievement monitoring through testing. Unpublished doctoral dissertation, University of Pittsburgh, Learning research and Development Center.

LeMahieu, P. (1983b, April). Monitoring achievement in Pittsburgh. Effects on instructional content and achievement. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

LeMahieu, P. (1984). The effects on achievement and instructional content of a program of student monitoring through frequent testing. Educational Evaluation and Policy Analysis, 6, 175-187.

Pitner, M. J. (1982). Training of the school administrator: State of the art. Unpublished manuscript, University of Oregon, Center for Educational Policy and Management, Eugene.

Salmon-Cox, L. (1983a). The results of a survey of principals' views about FRISM: A report to the staff development team. Unpublished report, University of Pittsburgh, Learning Research and Development Center.

Salmon-Cox, L. (1983b). Teachers' attitudes toward MAP programs: A mid-year report. Unpublished report, University of Pittsburgh, Learning Research and Development Center.

Salmon-Cox, L. (1983c). MAP Math: End of the year report. Unpublished report, University of Pittsburgh, Learning Research and Development Center.

Salmon-Cox, L. (1983d, April). Monitoring achievement in Pittsburgh: The teacher's viewpoint. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

- Sarason, S. B. (1971). The culture of the school and the problems of change. Boston: Allyn and Bacon.
- Shavelson, R. J. (1973). What is the basic teaching skill? Journal of Teacher Education, 24, 144-151.
- Shavelson, R. J. (1976). Teachers' decision-making. In N. L. Gage (Ed.), The psychology of teaching methods. The seventy-fifth yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press.
- Sproull, L., & Hofmeister, K. (1983, April). Monitoring achievement in Pittsburgh: The administrators' viewpoint. Paper presented at the annual meeting of the American Education Research Association, Montreal, Canada.
- Wallace, R. C., Jr. (1982). Monitoring achievement in Pittsburgh (MAP): Assumptions and components. Curriculum Bulletin, 16, 1-8.
- Wallace, R. C., Jr., & Reidy, E. F. (1978, June). Respect for teachers: The missing element in plans to improve student achievement. Paper presented at the Canadian Congress on Education, Montreal, Canada.
- Wallace, R. C., Jr., Young, J. R., Johnston, J., LeMahieu, P., & Bickel, W. E. (1984). Secondary education renewal in Pittsburgh. Educational Leadership, 41, 73-77.

Yukl, G. (1982). Managerial leadership and the effective principal.

Reston, VA: National Association of Secondary School Principals.